

DARK TRIAD VERSUS LIGHT TRIAD: LEADERSHIP BUILDING

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Abstract: Leaders may have characteristics of the dark triad that is divided into Narcissism, Machiavellianism, and Psychopathy. These individuals are typically considered dominant and assertive, ingredients that are argued to be associated with good leadership. Other leaders are associated with the light triad and have characteristics based on Kantianism, Humanism, and Faith in Humanity. Thus, the following problem arises: What characteristics of Dark Triad Versus Light Triad could be suitable to classify good leaders? To answer this problem, it was set the objective of mapping, in the light of the bibliometric review, which characteristics of Dark Triad Versus Light Triad could be suitable for this classification. For that, a bibliometric search was performed in the Web of Science database. The results of the current study suggest that the Dark Triad versus Light Triad personality traits might be used to classify good leaders because they can provide a precise and objective evaluation of the individual and a more precise understanding of what it takes to be a good leader.

Resumo: Os líderes podem possuir características da "Dark Triad" que se divide em Narcisismo, Maquiavelismo e Psicopatia. Essas pessoas são normalmente consideradas dominantes e assertivas, ingredientes estes que podem estar associados a uma boa liderança. Outros líderes são associados à "Light Triad" pois possuem características baseadas no Kantismo, Humanismo e Fé na Humanidade. Assim, surge o seguinte problema: Que características da "Dark Triad" versus "Light Triad" poderiam ser adequadas para classificar os bons líderes? Para responder a esse problema, foi traçado o objetivo de mapear, à luz da revisão bibliométrica, as características da "Dark Triad" Versus "Light Triad" que poderiam ser adequadas para esta classificação. Para tal, foi realizada uma pesquisa bibliométrica na base de dados Web of Science. Os resultados da investigação, sugeriram que os traços de personalidade Dark Triad versus Light Triad podem ser usados para classificar bons líderes porque estes podem fornecer uma avaliação precisa e objetiva do indivíduo e uma compreensão mais precisa acerca do que é necessário para ser um bom líder.

eywords: dark triad; light triad; bibliometric; leadership		
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INTRODUCTION

eadership is essential for developing business culture and employee success in the twenty-first century. Much has been sought to understand about leadership styles and the effect they have on teams and people. However, because of a string of business scandals in the beginning of the century - workplace disputes, financial fraud, unethical behavior, institutional harassment, etc.- leadership researchers recognize the necessity to concentrate more on the function of leader ethics in scholarly work (e.g., Zona et al., 2013).

Since then, has been a rush of empirical studies that examined several dark characteristics that are connected to ethically, morally, and socially unfavorable views and actions (Moshagen et al., 2018). Each of us has both a positive and negative side. The degree to which we constantly

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display light vs. dark patterns of thoughts, feelings, and behaviors in our day-to-day lives varies for each of us (e.g., Kaufman et al., 2019).

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To avoid evil behavior, it is not enough to study and better understand how the dark triad personality affects leadership, but we are also invited to examine the light side of personality and its effects on the leadership process.

Malevolent leadership (psychopathy, narcissism, and Machiavellianism) has gained a prominent role in research in recent decades. Most studies on evil leadership in organizations do not assess personality disorder, but a tendency towards (sub-pathological) psychopathy. The theme has also been particularly explored by the media, due to the rise to power of leaders considered malevolent. The question then arises: what can lead people to follow toxic leaders and why do they abound within organizations? The perception of uncertainty about what one is can lead people to support toxic leaders (Hogg, 2007), who 'sell' the illusion of control, in an attractive package of high emotional value. Insecurity about what someone is can lead people to value very simple leadership narratives, unambiguous, generally aggressive, and dramatic, and which create a perception that the central (complex) issues facing the world today, are easily resolved through an 'us versus them' dynamic (the existence of an external enemy that restores the perception to people that there is a specific group that threatens their way of life, rather than something more abstract, such as a purpose or mission worth fighting for) (Hogg, 2007). The existence of a 'palpable' external enemy in toxic leadership is as indispensable to its effectiveness as sails or engines are for a boat. This replaces the pursuit and experience of purposes with a broader and more informed meaning. Even though research on the dark triad is expanding, there hasn't been much integration with the rising body of knowledge on good and positive traits of leadership known as the light triad. As a result, while it is undoubtedly true that human nature has an evil side, and the Dark Triad literature has greatly advanced our knowledge of this component of humanity, research has also amply demonstrated a benign, growth-oriented side of people (e.g., Kaufman et al, 2019). In our work, we tried to address both sides of the coin, explore the contrasts between the dark and light sides of personality in the leadership realm and bring a new understanding of the characteristics that add to leadership excellence.

DARK TRIAD VERSUS LIGHT TRIAD

Numerous leadership ideas have been developed over time to define what leadership is. Over the past 200 years, several leadership theories have been established. Theories of leadership strive to offer solutions for various situations and attempt to explain why some leaders are successful while others are not. Since the development of "Great Man" notions in the 19th century, leadership research has remarkably expanded. A change in emphasis from a focus on the traits and behaviors of leaders to a more systemic approach, emphasizing leadership as a collective social process emerging from the interplay of many elements. To address new realities



of organizations, new leadership theories were subsequently developed, leading to updated and more applicable meanings of the triad leader, follower, and context (Benmira & Agboola, 2021). Nevertheless, personality or traits have long been recognized in leadership studies as important components of good leadership and recent reviews of the leadership research have confirmed that significant interest in the trait approach to leadership remains (Hiller et al., 2011; Zaccaro, 2012). According to the trait approach, successful leadership qualities can be inherited or learned through experience and training (Benmira & Agboola, 2021). There are many approaches to leadership, including the personality approach. Although the field of leadership studies is currently dominated by the instrumental approach - what leaders do - and the symbolic approach - how people see leaders and leadership (Anderson, 2005), more recently, leadership science has begun to pay close attention to the unfavorable elements of organizational life in the aftermath of public scandals throughout this century. The illustrative terms used to describe them — deviant, aberrant, and toxic —often serve as a boundary. As a result, organizational researchers are becoming increasingly interested in the dark triad personality and its links to leadership and more recently there have been requests for more dark triad personality studies to help us comprehend leadership and leader derailment (e.g., Furtner et al, 2017; Judge et al., 2009). While it is undoubtedly true that human nature has an evil side, and the Dark Triad literature has made significant contributions to our knowledge of this part of mankind, research has also thoroughly demonstrated the positive, growth-oriented, and benevolent side of individuals (e.g., Kaufman, 2019; Seligman, 2012). Moreover, the nature of leadership's good side has also recently received significant consideration (e.g., Song et al., 2020) and several studies are also looking for the light triad of personality (e.g., Kaufman et al, 2019). What are the main characteristics of a good leader? This is one of the questions that has been addressed in the research done on the realm of leadership (for review, see, e.g., Nawaz & Khan, 2016). Dark and light leadership research has been recently trying to answer the previous question by comparing dark and light triad models. Our research aims to add new insight into the topic, through the development of a bibliometric review that highlights the characteristics of dark triad versus light triad that could be suitable to classify good leaders and therefore contribute to integrating two fields that have been moving mainly on distinct paths.

DARK TRIAD

Narcissism, Machiavellianism, and Psychopathy are three interconnected higher-order personality traits that are frequently referred to as the "Dark Triad of Personality" (Paulhus & Williams, 2002). The dark triad has been viewed as a single, composite entity even if its elements are different (e.g., Jonason et al, 2011). Dark triad, are socially evil inclinations that share a socially harmful nature but differ in their motivations, attitudes, values, and actions. Each of the dark personality traits exhibits distinct behavioral patterns. Dark triad personalities are characterized by merciless self-advancement at the cost of other people's needs. These individuals don't have the need to reciprocate the cooperative attitude that have benefited from others in advance (Cosmides & Tooby, 1992). Dark Triad has been also associated with coercive counterproductive attitudes in the workplace (e.g., Jonason & Zeigler-Hill, 2018).

NARCISSISM



Narcissism is a psychoanalytic concept that defines the individual who exaggerates his own image and nurtures an excessive passion for himself. The term is derived from Narcissus, who according to Greek mythology was a beautiful young man who awakened the love of the nymph Echo. But Narcissus rejected this love and so he was condemned to fall in love with his own image reflected in the water. Narcissus ended up committing suicide by drowning. Later, Mother Earth converted him into a flower (daffodil). Narcissism is characterized by grandiosity, dominance, superiority, coldness, feelings of entitlement, and a need for affirmation (Guillén et al., 2022). Narcissists think they are exceptional, extraordinary, and rulers of a lovely existence that is above anything that anybody else could ever dream of. They believe they cannot relate to just anybody and that they must seek out those who share the grandiose conception of their identity and existence. Narcissists, when confronted with a perceived self-threat, will do their best to maintain power, win, and stand out (e.g., Horvarth & Morf, 2010), and are prone to selfpromotion and the pursuit of social superiority and power (e.g., Morf & Rhodewalt, 2001). Additionally, narcissists feel that they should serve as an example for people around them and that their experiences are more significant than those of others. Instead of offering counsel, they desire to dominate the conversation. Their interpersonal relationships suffer as a result, and they need to meet new people who adore them. These characteristics may facilitate the process of keeping individuals' efforts concentrated on themselves at the cost of those around them. Moreover, narcissism has advantages to start a social relationship with others (e.g., Twenge & Campbell, 2009). In a narcissist's worldview, there are only echoes of their own thoughts, therefore their reality is constrained to what they think and do. Since nothing is important to them, they don't listen to others. They think that everything in their lives is extraordinary, filled with accomplishments and endeavors, due to their need for adoration. Narcissistic adoration is the desire for uniqueness, great illusions, and fascinating conduct, and provides a self-assured, expressive, and commanding presence. Furthermore, narcissistic rivalry is the tendency to compete for superiority and devalue others, which involves haughty and aggressive conduct. Due to narcissistic rivalry, social groupings may see significant reductions in popularity over the course of the medium to long term (Parameswaran & Elsawy, 2022). Narcissists feel the need to conceal their weaknesses at all costs, and they can transform their insecurity into a fictitious fortress with the intention of protecting themselves from damage. They will take whatever necessary measures, such as chatting excessively, changing the subject, making fun of people, and pointing out their shortcomings, all to hide their weaknesses. Although narcissistic leadership may be related to an organization's earnings per share in one study (Ham et al., 2018), most literature found adverse organizational effects. Narcissistic leadership affects performance limits, and the fluctuation of return on assets year after year (Chatterjee & Hambrick, 2007). Furthermore, narcissistic leadership negatively affects an organization's results, as measured by return on assets and operational cash flow (e.g., Ham et al., 2018). Narcissism, in the realm of leadership, was associated with manipulating strategies to obtain desired goals (Buyl et al., 2019), the development of risky decisions to achieve recognition (Chatterjee & Hambrick, 2011), and the inclination to manipulate accounting figures to obtain financial leverage (e.g., Capalbo et al., 2017). Narcissistic leaders are also prone to engage in immoral, fraudulent, illicit, irresponsible, or self-centered behaviors and their leadership is frequently associated with the distortion of financial data (e.g., Capalbo et al., 2017), workplace bullying (e.g., Regnaud, 2014), and increased probability of using tax havens (e.g., Olsen & Stekelberg, 2016).

MACHIAVELLIANISM



The history of Niccolo Machiavelli serves as the foundation for the notion of applying Machiavellian principles to leadership. The Prince was written by the Italian bureaucrat Machiavelli around 1513. His work effectively established rules for leaders to manipulate and deceive others to dominate them. Machiavelli deconstructed dishonest politics, demonstrating that the battle for the acquisition and keeping of power is what drives it. Whatever the case, the leader's ability to act should not be constrained by moral standards. Furthermore, Machiavelli argued that to save the state, a leader should know "not to be good", lying or appearing pious if the situation demanded it, in order to maintain the safety and well-being of his people. Cruelty, in these cases, would be justifiable and well-used. Many centuries after Machiavelli's passing, researchers utilized his hostile symptoms to characterize manipulative people as having Machiavellian tendencies. Machiavellianism includes a contemptuous worldview, coldness, pragmatism, interpersonal manipulation, and a quest for self-beneficial and agentic goals (Guillén et al., 2022). Machiavellians use a combination of pro-social and anti-social behaviors to achieve their aims and by doing so they exert coercive control (Hawley, 2003). Machiavellians are prone to impulsive, careless, and undisciplined behaviors (Miller et al., 2017). Research has confirmed that those higher on Machiavellianism are more prone to participate in unethical behaviors (e.g., Greenbaum et al., 2017), counterproductive behaviors (e.g., O'Boyle et al., 2012), and Machiavellian leaders might be able to mask their cunning tactics with the help of impression management (e.g., Frazier & Jacezko, 2021), while also suffering from relational struggles (e.g., Muris et al., 2017). Machiavellians lack moral and ethical commitment and think that they can acquire anything they desire via deceit and malevolent self-interest. Machiavellians work best in jobs where rules and boundaries are ambiguous. They prefer to use subtle tactics, including, charm, sympathy, self-disclosure, and guilt, when possible, to mask their true intentions and provide a basis for plausible deniability if discovered. However, they can use pressure and threats when necessary. Machiavellian leaders frequently employ a variety of coercive techniques to maintain control over the organization, including intimidation, retaliation, and shame (i.e., unfavorable rumors, promotions, and "special" tasks). Machiavellianism has four underlying facets (Dahling et al., 2009): -Distrust of others which is a cynical viewpoint on the motivations and intentions of others with a concern for the negative consequences that those intentions have for the self; - Desire for status is an aspiration to collect external signs of success; - Desire for control embodies a need to uphold supremacy in relational circumstances to minimize the power held by others, and - Amoral manipulation which is an inclination to disrespect morals and see advantages in actions that benefit the person at the expense of others. Machiavellians are highly motivated to take charge and look for leadership positions that provide them the power to govern both people and resources (Dahlinget al., 2009). Although previous research on the effects of Machiavellian leaders has found contradictory results, according to Bedell et al. (2006), Machiavellianism was positively linked to detrimental leadership outcomes. The Machiavellian leader increases follower's counterproductive behaviors (e.g., Belschak et al., 2020), motivates perceptions of abusive supervision by followers (e.g., Wisse & Sleebos, 2016), and is responsible for the escalation of emotional exhaustion and reduced career satisfaction (e.g., Volmer et al., 2016). Although Machiavellians try to abstain from dishonest and destructive behaviors when the aim is impression management, they may use prosocial relational tactics and in the absence of high political skill Machiavellians tend to be ineffective leaders (e.g., Genau et al., 2021).

PSYCHOPATHY



Psychopathy is characterized by manipulation, impulsivity, and low empathy (Guillén et al., 2022). Psychopathic individuals tend to be reckless, irresponsible, and grandiose, as well as have certain characteristics in common with Machiavellians, such as callousness and interpersonal manipulation. Psychopaths are highly developed cheaters who take advantage of others' cooperation because they lack the emotional and cognitive systems that naturally prevent antisocial behavior (e.g., Book & Quinsey, 2004; Book et al, 2015). Within the realm of psychopathy, we may generally witness behavior like persuasive discourse since a psychopath may persuade someone else to agree with him. They are skilled manipulators and may convince you that their point of view is the correct one. Furthermore, a psychopath frequently believes that he is at the center of everything. Being a highly self-assured and confident individual, he despises other people's opinions and finds it difficult to comprehend why they do not share his viewpoint. Psychopathy is often linked to a certain amount of pride in the ability to deceive others and without the proneness to feel guilt, the psychopath is unaware of the harm he might potentially cause to another. This characteristic can also lead to a significant amount of irresponsibility. Research has demonstrated that people with psychopathy are excellent at exploiting knowledge and controlling their behavior if it is directly related to their goal. For instance, they can seem charming and disregard feelings to deceive someone. However, they frequently exhibit impulsive conduct (like quitting a job without having a new one lined up) and terrible decision-making when information is beyond their current center of attention (Hamilton & Newman, 2018). It is generally accepted that those who have psychopathic tendencies have a variety of very unpleasant personality traits that are harmful to the effective functioning of the workplace (Spain et al., 2014). Leaders with a tendency towards psychopathy can cause serious harm to people, teams, and organizations. Psychopathy can worsen interpersonal interactions at work, violate moral principles, and promote bullying, unfair oversight, and conflict (Scherer et al., 2013). Psychopathic leadership is linked to dominant, impulsive, and perverse behaviors. These leaders feel low affective empathy for people, despite being able to effectively decode them so they can use and manipulate them (e.g., Patrick et al., 2009). Psychopathic tendencies are, on average, weakly positively correlated to leadership emergence and weakly negatively correlated to leadership effectiveness (Landay et al., 2018). Moreover, gender seems to moderate the link of psychopathic tendencies with leadership emergence and effectiveness since women are judged unfavorably when they exhibit psychopathic traits, whereas males are not (Landay et al., 2018). The psychopathic leader tends to be highly career-oriented, effective in high-pressure environments, ruthless with people, unethical, and exploitative. In a study conducted by Boddy (2017), we learned that the psychopathic leader can be responsible for the departure of valid people, for the decrease in the level of commitment, for the reduction of creativity and innovation, and for the reduction of income.

Rarely did those with high levels of psychopathy and Machiavellianism engage in self-enhancement actions. On the other hand, individuals high in narcissism tend to frequently engage in self-enhancement behaviors, aggression typically the following provocation. While compared with Machiavellians and narcissists, psychopaths are more likely to behave in antisocial, indiscriminate aggression, and violent behavior. Moreover, psychopaths were found to have weaker capabilities of moral reasoning. According to genetic and phenotypic study on moral development, Machiavellians are the finest moral philosophers, even if they act selfishly despite their moral thinking, according to the research (Parameswaran & Elsawy, 2022).

Considering the dark triad personality as a compound of three linked traits, creates the landscape to consider it stable across time and circumstances, which ends in expectable motivations and behaviors (Miller & Campbell, 2008). Nevertheless, motivations and behaviors may be also a consequence of a combination of personality and context-based features, suggesting that dark triad evil behaviors may be constrained or stimulated. Thus, drawing on trait activation theory, is



not enough to identify dark trait personalities inside organizations but also the factors that may trigger dark triad evil behaviors (Judge & Zapata, 2015). For example, compensation systems and performance management are processes by which boards can restrain negative behavior and promote positive behavior. According to recent research (Miao et al., 2019), emotional intelligence may be an antidote to the dark triad. Emotionally intelligent leaders have fewer evil tendencies (narcissism, Machiavellianism, and psychopathy). The higher the leader's emotional intelligence, the lower is his tendency towards psychopathy and Machiavellianism (Miao et al., 2019). Furthermore, emotional intelligence is related with leadership effectiveness (e.g., Siegling et al., 2014), getting a leadership position (e.g., Walter et al., 2012) and workplace satisfaction (e.g., Miao et al., 2016). Linked with the emotional intelligence narrative are the light triad of personality traits which will be address below.

LIGHT TRIAD

Human nature has a positive, growth-oriented aspect in addition to its disease and negativity. Contemporary research on positive psychology has found a number of positive human characteristics such as gratitude, savoring, hope, mindfulness, meaning, morality, positive emotions, grit, and autonomy (for review, see, e.g., Kaufman et al., 2019) that influence human activity to a large extent. Accordingly, to Kaufman et al. (2019), beyond the Dark Triad, it is important to understand this bright, beneficent, growth-oriented side of human beings, the Light Triad, which consists of three facets: Kantianism, Humanism, and Faith in Humanity. When considered as a whole, the Light Triad shows a loving and beneficent disposition toward other people that are frequently displayed in daily behavior and offers better comprehension of the concepts of caring, and moral and social compassion (Gerymski & Krok, 2019). Broadly speaking, unlike Dark Triad, Light Triad seems to be positively linked with life satisfaction and growthoriented outcomes. Moreover, the Light Triad is positively linked with global self-esteem, authentic living, self-awareness, unbiased processing, authentic behavior, competence, and autonomy (Kaufman et al., 2019) and is negatively correlated with Dark Triad variables (Sevi et al., 2020). Furthermore, negative correlations were found between the Light Triad facets and reactiveproactive aggression styles, selfishness, self-alienation, and anxious and avoidant attachment (Kaufman et al., 2019). Faith in Humanity, Humanism, and Kantianism may all be seen as positive influences that highlight the potential of human capabilities and the propensity of people to move from the negative to the positive. Human beings may relate to others in morally, positive, and affirming ways and the characteristics of the Light Triad also represent the human ability to resist unpleasant and egoistic ideas that may lead people to act in selfish, volatile, and unkind ways (Gerymski & Krok, 2019). Even considering that Light Triad is a recent construct, the research found that the Light Triad was linked to better levels of personal growth, more optimistic and upbeat attitudes, and improved quality of life and well-being metrics. In contrast, individuals are more likely to see and recognize good personality sides in both themselves and others, which may suggest that unpleasant personality traits do not entirely reflect the nature of human beings (Gerymski & Krok, 2019).

KANTIANISM



Kantianism is the belief that each person has an individual purpose and should be treated as ends unto themselves, rather than a means to an end. This Light trait of personality comes from Kant's second formulation of the categorical imperative which is a method of moral decisionmaking. The maxims of categorical imperative should be accepted as universal laws and could be considered adequate motivation for human action. No matter the circumstances, the second formulation was an end in itself, and no other purpose can justify its violation. The categorical imperative is a moral decision guided by reason and not by our inclinations, since it contains the end in itself, it is categorical because it says, "don't do x" and never "don't do x if your end is y". Therefore, it is not linked to any particularity, including the identity of the person, and must be applicable to any rational being. Kant claims that it is always wrong to instrumentalize people, that is, to use them as mere means to achieve our ends. People are rational agents, beings endowed with autonomy, capable of freely choosing their goals. To respect people, we must always treat them as autonomous beings (as ends in themselves), and not as mere instruments that are at the service of our plans. This quality is the opposite of Machiavellianism. Individuals that have a high mark on Kantianism chose to be honest instead of charmful. They are not comfortable manipulating others into doing something that is exclusively in their best interest. They feel the need to be authentic, even if it may damage their reputation, and when talking to people they rarely think about what they want from them (Kaufman et al., 2019).

HUMANISM

Humanism is characterized by valuing the worth and human dignity of each person, or the belief that humans across all personalities deserve respect. According to the Light Triad Scale (Kaufman et al., 2019), individuals that have a high score on Humanism tend to admire others, be happy with the success of other people, treat other human beings as worthy, and actively listen to people from all walks of life.

FAITH IN HUMANITY

Faith in Humanity or the belief that humans are good in essence. (Kaufman et al., 2019). Individuals that have Faith in Humanity tend to cast people in a favorable light, trust the other people will be honest and deal fairly with them, think people are mostly good, and quickly forgive people who have hurt them.

Research on the realm of political leadership found that Light Triad traits – Humanism and Faith in Humanity – were related to political ambition and participation. Yet, while the Light Triad provides a normatively acceptable approach to trait-based research, Dark Triad is the more substantial correlate of the domains of ambition and political participation (Peterson & Palmer, 2021). Another study demonstrated that the attributes of Light Triad leaders fit with agile values more effectively than those of Dark Triad leaders (Kaletta & Reuther, 2021). Also, findings from Malik et al. (2020), showed that abusive supervision both directly and indirectly promotes malicious creativity and indicated that people with high levels of the Light Triad traits are less prone than those with low levels to resort to malignly creative behavior in response to abusive supervision.



The evolving concept of the Light Triad seeks to redirect the academic narrative about personality to the role of positive traits has in. Nowadays, one of the goals of Positive Psychology is to find a balance between the light and dark triad characteristics of personality, which can give a precise and impartial assessment of the person and a more balanced perspective.

METHODOLOGY

To address the problem of this research, the study is classified as exploratory-descriptive to describe the theme and increase the familiarity of researchers with the topic. The literature search method used was a systematic search in an on-line database, followed by a bibliometric analysis of the results. Bibliometrics is a methodology from the information sciences that uses mathematical and statistical methods to map documents from bibliographic records stored in databases (Linnenluecke, 2019). Bibliometrics allows relevant findings such as: number of productions by region; temporality of publications; organization of research by area of knowledge; count of literature related to the citation of the study; identification of the impact factor of a scientific publication among others that contribute to the systematization of the research results and the minimization of the occurrence of biases when analyzing a given topic. For the bibliometric analysis, the study was organized in three distinct stages: planning, collection, and results. These steps happened in a convergent way to answer the guiding question of the study, namely: What characteristics of Dark Triad Versus Light Triad could be suitable to classify good leaders?

Planning began and ended in September 2022, when the research was carried out. In this phase, some criteria were defined, such as limiting the search to electronic databases, which in the case of this research was the Web of Science (WOS), not contemplating physical catalogs in libraries, due to the number of documents considered sufficient in the databases chosen in this research. In the planning scope, the WOS database was stipulated as relevant to the research domain due to the relevance of this database in academia and its interdisciplinary nature, the focus of research in this area. Furthermore, it is one of the largest databases of abstracts and bibliographic references of peer-reviewed scientific literature and is constantly updating (Woszezenki & Gonçalves, 2013). Considering the research problem, the search terms "Dark Triad" and "Light Triad" were measured. It is considered that the variations of the terms used for the search are presented, in a larger context, within the same proposal, because a concept depends on the framework to which it is related. And, finally, it was defined, when planning the search, to use the terms defined in the "title, abstract, and keyword" fields, without making restrictions in terms of time, language, or any other that might limit the results. Furthermore, the inclusion criterion adopted was "article" type documents. From the research planning, the data collection, performed on September 09, 2022, retrieved a total of 31, indexed papers, which pointed to registration from 2019, the first publication, to 2022.

BIBLIOMETRY RESULTS

As a result of this collection, we found that the 147 papers identified in the search were written by 792 authors from 44 different countries. A total of 158 keywords were used. Table 1 shows the results of this data collection in a general bibliometric analysis.



TABLE 1 BIBLIOMETRIC DATA

Description	Results		
MAIN INFORMATION ABOUT DATA			
Timespan	1991:2022		
Sources (Journals, Books, etc)	107		
Documents	147		
Average years from publication	5.93		
Average citations per documents	23.58		
Average citations per year per doc	4.358		
References	7665		
DOCUMENT TYPES			
DOCUMENT TYPES			
Article	128		
Article; Early access	9		
Editorial material	1		
Proceedings Paper	5		
Review	4		
DOCUMENT CONTENTS			
Keywords	158		
AUTHORS			
Authors	792		



From the 147 papers, one can observe a varied list of authors, institutions and countries that stand out in the research on "Dark Triad" and "Light Triad". When analyzing the 20 countries with the most citations in the area, one can see that the USA stands out with 49% of the total citations, a total of 1621 citations. In second place, Germany stands out with 10% of the citations, as shown in figure 1.

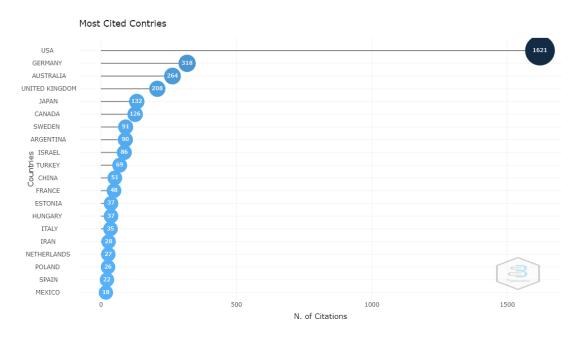


FIGURE 1 DISTRIBUTION OF PAPERS BY COUNTRY

Figure 2 presents the intensity of publication by country and the relationship established between them, through citations between published papers, the continents: Europe and Asia, as shown in the following image.



Country Collaboration Map

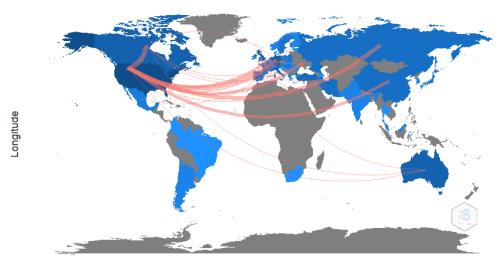


FIGURE 2 SPATIAL DISTRIBUTION AND RELATIONSHIPS OF THE DARK TRIAD AND LIGHT TRIAD PUBLICATIONS

Another analysis performed is related to the identification of authors. The author who has more production in the topic is Atari M. with four papers, according to figure 3.

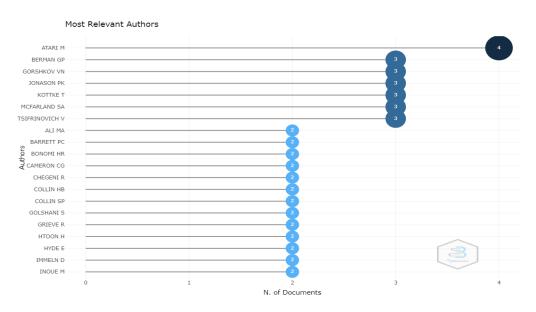


FIGURE 3 AUTHORS WITH THE MOST PUBLISHED PAPERS ON THE SUBJECT OF THE SEARCH

The most cited authors globally were Hyde E; Kaufman SB and Yaden DB, with fourteen citations in the area, as illustrated in figure 4.



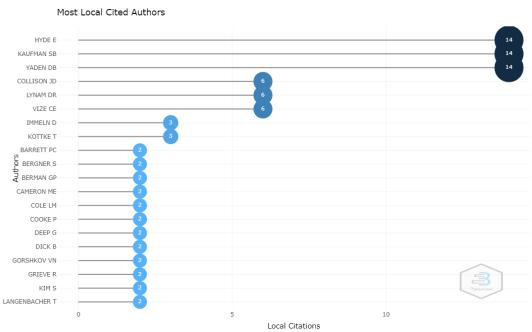


FIGURE 4 MOST CITED AUTHORS GLOBALLY

The productivity and relevance of the production over time of the main authors are represented in figure 5, where the size of the point represents the number of publications, and the intensity of the color represents the number of citations of the annual publications. It is observed that the productivity and the relevance of publications, over time, are dynamic.

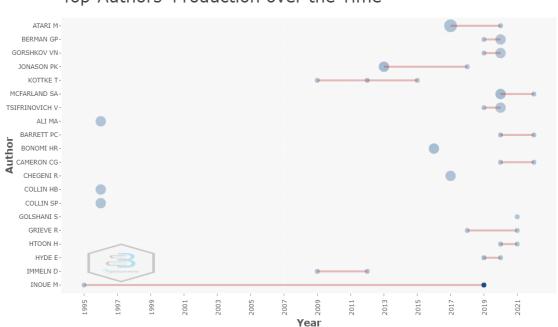


FIGURE 5 PRODUCTIVITY AND RELEVANCE OF PUBLICATIONS BY AUTHOR

Top-Authors' Production over the Time

66



From the bibliometric analysis, based on the workgroup retrieved, in the base of 158 keywords indicated by the authors, "Dark Triad" stood out with 46, Machiavellianism with 31 occurrences, according to figure 6.



FIGURE 6 TAG CLOUD

Also, "personality" is highlighted, from which we conclude this influence in the construction of the dark triad or light triad leadership is quite explored by the literature.

CONSIDERATIONS

The main objective of this bibliometric review was to map, in light of the bibliometric review, which characteristics of the Dark Triad Versus Light Triad could be adequate to classify good leaders. To answer the research question, 147 documents were identified and reviewed. The characteristics of the Dark Triad versus Light Triad that could be suitable for classifying good leaders were identified. The articles were published between 1991 and 2022 and out of 147 works analyzed, there is a diverse list of authors, institutions, and countries that stand out in the research on Dark Triad versus Light Triad. When analyzing the 20 countries with the highest number of citations in the area, the United States leads with 1621 citations. Regarding the authors who have more production on the subject, Atari M., stood up with four papers.

The present research concluded that the characteristics of the Dark Triad versus Light Triad could be adequate to classify good leaders since these characteristics of personality, can give a precise and impartial assessment of the person and a more balanced perspective of what it takes to be a good leader. Although the study answered the research question, there are some limitations that should be considered. First, the documents reviewed were limited to articles published in the Web of Science indexed journals. Although Web of Science is the largest database, future studies may also include Scopus, EBSCO, and ProQuest databases. Finally, the inclusion and exclusion of documents were based on subjective judgments. For future works, the objective is to do empirical research to verify the role of Dark Triad leadership in the management of an organization.



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